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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/039,072	03/13/1998	ATSUSHI SASAKI	P/1878-109	9140

7590 05/08/2003

Steven I Weisburd  
DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP  
1177 Avenue of Americas  
41st Floor  
New York, NY 10036-2714

EXAMINER

GRIER, LAURA A

ART UNIT	PAPER NUMBER
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2644

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DATE MAILED: 05/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/039,072

Applicant(s)

SASAKI, ATSUSHI

Examiner

Laura A Grier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

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## DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

### *Claim Objections*

2. Claim 4 is objected to because of the following informalities: line 2 contains a misspelled word. The word, "comparison", and before the word, "the", towards the end of the sentence, "o", should be spelled as "of". Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2, recites the limitation "the reverberation and the echo" in lines 6 and 10, respectively. There is insufficient antecedent basis for this limitation in the claim.

Claim 2, recites the combined characteristics of reverberation and echo. However, in independent claim 1, the characteristics are written and interpreted with alternative meaning, either/or. As claim 1 is written, the sound signal may be composed of reverberation or echo characteristics, not both. Thus the claim language of claim 2 is indefinite.

Claim 2, recites the limitation "the converted voice data" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Regarding claims 5, 7 and 9, the claimed limitations are rejected based on the rejection of claim 2, in which they are dependent.

Claim 3, recites the limitation "said successive comparison analysis part" in lines 1-2, recites the limitation "said voice data" in line 3; and recites the limitation "the serial data" in line 3. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claim 1** is rejected under 35 U.S.C. 102(b) as being anticipated by Iwamura, U. S. Patent No. 5172417.

Regarding **claim 1**, Iwamura discloses an apparatus for controlling acoustical transfer characteristics. Iwamura disclosure (figure 14) comprises surround sound loudspeakers (col. 14, lines 34-42) at outputs 17 and 18, which indicates a loudspeaker; a microphone for taking in an audio input signal output from the loudspeakers (col. 10, lines 54-56 and reference 11), which reads on a microphone for picking up sound regenerated and/or reproduced from the loudspeaker; a surrounding sound processor (14) or DSP for comparing in real time, (col. 11, lines 9-13), a direct input signal from the microphone with the signal received from an audio

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input signal (references 19 and 20), which provides inherent support of a sound source, in respect to reverberation characteristics (col., lines 52-68), wherein Iwamura further discloses that sound characteristics or decision data factors including, other characteristics such as frequency, thus supporting sound characteristics including frequency and reverberation (col. 2, lines 8-16), including delay circuits (D1 and D2), and improving the reproduced sound output by the sound source, which reads on a corrected signal, and further the sound signal(s) is output to an expansion circuit inherently amplifies (amplifier), since a smaller range input signal is converted to a larger output signal range (figure 14).

Regarding claims 4, 6, and 8, Iwamura discloses everything claimed as applied above (see claim 1). Iwamura further discloses an arithmetic section for the performing calculations for providing an improved control value based on decision characteristic factors such as frequency and reverberation (col. 1, lines 60-68 and col. 2, lines 1-7), which reads on a learned result and/or a comparison result.

### ***Response to Arguments***

6. Applicant's arguments, see pages 3-6, filed 2/5/03, with respect to the rejection(s) of claim(s) 1-9 under U.S.C. 102(e) and U. S. C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Iwamura. The reference of Iwamura provides support of a microphone receiving a input from a loudspeaker (reproduced signal) and thus providing a direct reproduced input into a processor for comparing the frequency and reverberation aspects of the incoming audio signal of the audio source device.

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura A Grier whose telephone number is (703) 306-4819. The examiner can normally be reached on Monday - Friday, 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

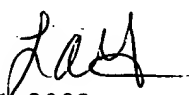
Washington, D.C. 20231


**Or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

LAG   
May 1, 2003

  
FORESTER W. ISEN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600